

Claims

1. Use of live *Arthrobacter* cells in the preparation of a medicament for the treatment or prevention of piscirickettsiosis in fish.
2. Use according to claim 1 wherein the fish are salmonid fish.
3. Use according to claim 1 or claim 2 wherein the piscirickettsiosis is salmonid rickettsial septicaemia (SRS).
4. Use according to any preceding claim wherein the *Arthrobacter* cells are from the strain deposited under accession number ATCC 55921 or an equivalent strain.
5. Use according to any preceding claim wherein the fish are Coho salmon (*Oncorhynchus kisutch*).
6. Use according to any preceding claim wherein the medicament further comprises *Piscirickettsia salmonis* antigen(s).
7. A vaccine composition comprising live *Arthrobacter* cells and an immunostimulant, with a pharmaceutically acceptable carrier.
8. A vaccine composition according to claim 7, wherein said immunostimulant comprises killed bacterial cell material.
9. A vaccine composition according to claim 8 wherein said cell material is from killed *Arthrobacter* cells.
10. A vaccine composition comprising killed *Arthrobacter* cell material.
11. A vaccine composition according to claim 10 wherein said *Arthrobacter* cell material is heat-killed.

12. A vaccine composition according to any of claims 7 to 11 wherein the *Arthrobacter* cells and/or the killed *Arthrobacter* cell material are from the strain deposited under accession number ATCC 55921.

13. A vaccine composition according to any of claims 7 to 12 which is lyophilized or in the form of a saline suspension.

14. A vaccine composition comprising live *Arthrobacter* cells and further comprising at least one other immunogen.

15. A vaccine composition according to claim 14 wherein said immunogen is selected from the group consisting of: inactivated antigen prepared from *P. salmonis*; a recombinant *P. salmonis* antigen; and a nucleic acid vector carrying an expressible *P. salmonis* antigen.

16. A vaccine composition according to claim 15 comprising live *Arthrobacter* cells and a *P. salmonis* antigen inactivated by formalin.

17. A kit comprising a first vaccine comprising live *Arthrobacter* cells, and a second vaccine comprising an immunogen selected from the group consisting of: inactivated antigen prepared from *P. salmonis*; a recombinant *P. salmonis* antigen; and a nucleic acid vector carrying an expressible *P. salmonis* antigen; for separate, sequential, or simultaneous administration to fish.

18. A kit according to claim 17 comprising lyophilized live *Arthrobacter* cells; and a sterile diluent comprising inactivated *P. salmonis* antigen.

19. Use of a vaccine composition according to claim 16 or a kit according to claim 18 as a medicament, for protection of fish against SRS and BKD infections.

20. A method of treating or preventing piscirickettsiosis, comprising administering to a fish a vaccine composition according to any of claims 7 to 16.

21. Use of killed *Arthrobacter* cell material as an immunostimulant for fish.